

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) An information processing apparatus for forming print data to be transmitted to a printing apparatus, comprising:

a spooler which is adapted to convert ~~an intermediate data converter for converting~~ data formed by an application to be printed into data in an intermediate code format and ~~for to~~ temporarily spool ~~preserving~~ the intermediate code format data ~~with and~~ print setting information as one print job in a spool file, the print setting information including layout information specified via a user interface of a printer driver, wherein said spooler is configured to spool a plurality of print jobs ~~as one print job in a memory;~~

a processor which is adapted to form ~~job composer for forming~~ one composed job by composing a the plurality of print jobs spooled ~~preserved~~ by the ~~intermediate data converter~~ said spooler; and

a previewer which is adapted to obtain ~~preview display controller for~~ obtaining layout information from the intermediate code format data preserved by the ~~intermediate data converter and for controlling~~ of the plurality of print jobs composed by said processor and to output drawing data edited in accordance with the respective layout information so as to control a display screen to display of a preview of the composed job ~~on the basis of the layout information,~~

————— ~~wherein said job composer generates job output setting information of the~~ composed job based on the print setting information of the plurality of print jobs to be

~~composed, and wherein the job output setting information maintains page layout of the plurality of print jobs, and~~

wherein when controlling display of the preview of the composed job, said ~~preview display controller~~ previewer controls the display screen to ,~~based on the generated job output setting information,~~ display of a the preview indicating that the respective page layout of the plurality of print jobs is maintained.

2. (Currently Amended) An apparatus according to claim 1, further comprising a setting editor for displaying a user interface to edit a print setting of the ~~preserved~~ spooled intermediate code format data and to temporarily spool ~~preserving~~ the print setting edited by said user interface in association with the intermediate code format data,

wherein the layout information is included in said print setting.

3. (Original) An apparatus according to claim 2, wherein said user interface can edit the print setting for the composed job.

4. (Cancelled)

5. (Currently Amended) An apparatus according to claim 1, wherein said respective layout information includes a layout process in said information processing apparatus and a layout process in said printing apparatus.

6. (Currently Amended) An apparatus according to claim 1, further comprising a print data forming unit for forming the print data to be transmitted to said printing apparatus on the basis of intermediate data format data ~~preserved~~ spooled by said ~~intermediate data converter~~ spooler.

7. (Currently Amended) An apparatus according to claim 6, further comprising:

a draw command forming unit for converting the intermediate data format data ~~preserved~~ spooled by said spooler ~~intermediate data converter~~ into a draw command which can be interpreted by a drawing unit of an ~~as and outputting~~ operating system ("OS"); and

a print command allocating unit for sending a print command received from the application through the drawing unit of the ~~as to a~~ OS to the spooler and sending the print command received from said draw command forming unit through the drawing unit of the ~~as~~ OS to said print data forming unit.

8. (Original) An apparatus according to claim 7, wherein the draw command is a GDI function, the print command is a DDI function, and the print data is a printer language.

9. (Currently Amended) An information processing method of forming print data to be transmitted to a printing apparatus, comprising:

~~a spooling an intermediate data converting step to convert of converting~~
data formed by an application to be printed into data in an intermediate code format and to
~~of temporarily preserving spool~~ the intermediate code format data ~~with and~~ print setting
information as one print job in a spool file, the print setting information including
respective layout information specified via a user interface of a printer driver, wherein said
spooling step is repeatable so as to spool a plurality of print jobs as one print job in a
memory;

a processing job composing step of forming one composed job by
composing a the plurality of print jobs spooled preserved in said intermediate data
converting spooling step; and

a preview display controlling step of obtaining respective layout information
of the plurality of print jobs composed in said processing step and to output drawing data
edited in accordance with the respective layout information so as to control a display screen
to from the intermediate code format data preserved in said intermediate data converting
step and of controlling display of a preview of the composed job on the basis of the layout
information,

~~wherein said job composing step generates job output setting information of~~
~~the composed job based on the print setting information of the plurality of print jobs to be~~
~~composed, and wherein the job output setting information maintains page layout of the~~
~~plurality of print jobs, and~~

wherein said preview ~~display controlling~~ step controls, ~~based on the~~
~~generated job output setting information,~~ the display screen to display of a the preview
indicating that the respective page layout of the plurality of print jobs is maintained.

10. (Currently Amended) A method according to claim 9, further
comprising a setting editing step of displaying a user interface to edit a print setting of the
~~preserved~~ spooled intermediate code format data and to temporarily spool ~~preserving~~ the
print setting edited by the user interface in association with the intermediate code format
data;

wherein the layout information is included in said print setting.

11. (Original) A method according to claim 10, wherein the user interface
can edit the print setting for the composed job.

12. (Cancelled)

13. (Currently Amended) A method according to claim 9, wherein the
respective layout information includes a layout process in said information processing
method and a layout process in said printing apparatus.

14. (Currently Amended) A method according to claim 9, further
comprising a print data forming step of forming the print data to be transmitted to said

printing apparatus on the basis of the intermediate code format data ~~which has temporarily been preserved~~ spooled in the spooling step.

15. (Currently Amended) A method according to claim 14, further comprising:

a draw command forming step of converting the ~~preserved~~ spooled intermediate code format data into a draw command which can be interpreted by a drawing unit of an ~~as and outputting~~ operating system ("OS"); and

a print command allocating step of sending a print command received from the application through the drawing unit of the ~~as to said intermediate data converting~~ OS in said spooling step and sending the print command received from said draw command forming step through the drawing unit of the ~~as~~ OS to said print data forming step.

16. (Original) A method according to claim 15, wherein the draw command is a GDI function, the print command is a DDI function, and the print data is a printer language.

17. (Currently Amended) A computer-readable storage medium which stores a computer-executable ~~readable~~ program for an information processing apparatus for forming print data to be transmitted to a printing apparatus, wherein the program comprises:

~~a spooling an intermediate data converting step to convert of converting~~
data formed by an application to be printed into data in an intermediate code format and to
~~of temporarily spool preserving the intermediate code format data with and~~ print setting
information as one print job in a spool file, the print setting information including layout
information specified via a user interface of a printer driver, wherein the spooling step is
repeatable so as to spool a plurality of print jobs as one print job in a memory;

a ~~processing job composing step to form of forming~~ one composed job by
composing a the plurality of print jobs preserved spooled in said intermediate data
~~converting spooling step; and~~

a preview ~~display controlling step of obtaining to obtain respective~~ layout
information of the plurality of print jobs composed in said processing step and to output
drawing data edited in accordance with the respective layout information so as to control a
display screen to ~~from the intermediate code format data preserved in said intermediate~~
~~data converting step and of controlling display of a preview of the composed job on the~~
~~basis of the layout information,~~

~~wherein said job composing step generates job output setting information of~~
~~the composed job based on the print setting information of the plurality of print jobs to be~~
~~composed, and wherein the job output setting information maintains page layout of the~~
~~plurality of print jobs, and~~

wherein said preview ~~display controlling step controls, based on the~~
~~generated job output setting information, the display screen to display of a the preview~~
indicating that the respective page layout of the plurality of print jobs is maintained.

18. (Currently Amended) A computer-readable medium according to claim 17, wherein the program further comprises a setting editing ~~program code for displaying~~ step to display a user interface to edit a print setting of the ~~preserved~~ spooled intermediate code format data and to temporarily spool ~~preserving~~ the print setting edited by the user interface in association with the intermediate code format data,

and wherein the layout information is included in the print setting.

19. (Currently Amended) A computer-readable medium according to claim 18, wherein the user interface can edit the print setting for the composed job.

20. (Cancelled)

21. (Currently Amended) A computer-readable medium according to claim 17, wherein the respective layout information includes a layout process in said information processing apparatus and a layout process in said printing apparatus.

22. (Currently Amended) A computer-readable medium according to claim 17, wherein the program further comprises a print data forming ~~program code for forming~~ step to form the print data to be transmitted to said printing apparatus on the basis of the ~~preserved~~ spooled intermediate code format data.

23. (Currently Amended) A computer-readable medium according to claim 22, wherein the program further comprises:

a draw command forming ~~program code for converting~~ step to convert the ~~preserved~~ spooled intermediate code format data into a draw command which can be interpreted by a drawing unit of an ~~as and outputting~~ operating system ("OS"); and

a print command allocating ~~program code for sending~~ a step to send print command received from the application through the drawing unit of the OS in said spooling step ~~as to said intermediate data converting program code~~ and ~~sending to send~~ the print command received from said draw command forming program code through the drawing unit of the ~~as~~ OS to said print data forming ~~program code~~ step.

24. (Currently Amended) A computer-readable medium according to claim 23, wherein the draw command is a GDI function, the print command is a DDI function, and the print data is a printer language.

25. (Currently Amended) A computer-executable ~~readable~~ program stored on a computer-readable memory medium for an information processing apparatus for forming print data to be transmitted to a printing apparatus, comprising:

spooling code for a spooling step to convert ~~an intermediate data converting step of converting~~ data formed by an application to be printed into data in an intermediate code format and ~~to~~ of temporarily spool ~~preserving~~ the intermediate code format data ~~with~~ and print setting information as one print job in a spool file, the print setting

information including layout information specified via a user interface of a printer driver,
wherein the spooling code is executable repeatedly so as to spool a plurality of print jobs as
one print job in a memory;

processing code for a processing step ~~a job composing step of forming one~~
composed job by composing a the plurality of spooled print jobs ~~preserved in said~~
intermediate data converting step; and

preview code for a preview step to obtain respective ~~a preview display~~
~~controlling step of obtaining~~ layout information of the plurality of composed print jobs and
to output drawing data edited in accordance with the respective layout information so as to
control a display screen to ~~from the intermediate code format data preserved in said~~
~~intermediate data converting step and of controlling display of a preview of the composed~~
job on the basis of the layout information,

~~wherein said job composing step generates job output setting information of~~
~~the composed job based on the print setting information of the plurality of print jobs to be~~
~~composed, and wherein the job output setting information maintains page layout of the~~
~~plurality of print jobs, and~~

wherein said preview ~~display controlling step~~ code controls, ~~based on the~~
~~generated job output setting information,~~ the display screen to display of a ~~the~~ preview
indicating that the respective page layout of the plurality of print jobs is maintained.

26. (Currently Amended) A computer-executable program stored on a
computer-readable memory medium according to claim 25, further comprising editing code

for a setting editing ~~program code for displaying step to display~~ a user interface to edit a print setting of the ~~preserved~~ spooled intermediate code format data and to temporarily spool ~~preserving~~ the print setting edited by the user interface in association with the intermediate code format data,

wherein the layout information is included in the print setting.

27. (Currently Amended) A computer-executable program stored on a computer-readable memory medium according to claim 26, wherein the user interface can edit the print setting for the composed job.

28. (Cancelled)

29. (Currently Amended) A computer-executable program stored on a computer-readable memory medium according to claim 25, wherein the respective layout information includes a layout process in said information processing apparatus and a layout process in said printing apparatus.

30. (Currently Amended) A computer-executable program stored on a computer-readable memory medium according to claim 25, further comprising print-data forming code for a print data forming step to form ~~program code for forming~~ the print data to be transmitted to said printing apparatus on the basis of the ~~preserved~~ spooled intermediate code format data.

31. (Currently Amended) A computer-executable program stored on a computer-readable memory medium according to claim 30, further comprising:

draw-command code for a draw command forming step to convert program code for converting the preserved spooled intermediate code format data into a draw command which can be interpreted by a drawing unit of an OS and outputting operating system ("OS"); and

print-command allocating code for a print command allocating program code for sending step to send a print command received from the application through the drawing unit of the OS to said spooling as to said intermediate data converting program code and sending to send the print command received from said draw-command draw-command forming program code through the drawing unit of the as OS to said print-data forming program code.

32. (Previously Presented) A program stored on a computer-readable memory medium according to claim 31, wherein the draw command is a GDI function, the print command is a DDI function, and the print data is a printer language.

Please add Claims 33 to 44, as follows:

33. (New) An information processing apparatus for forming print data to be transmitted to a printing apparatus, comprising:

designation means for designating a plurality of document data stored in a memory so as to print the plurality of document data as one composed print job at the printing apparatus, each of the plurality of document data being associated with layout information that indicates a number of logical pages to be printed on one physical page;

composition means for forming the composed print job by composing the plurality of document data designated by said designation means; and

preview control means for obtaining respective layout information of the plurality of document data designated by said designation means and outputting drawing data edited in accordance with the respective layout information so as to control display of a preview of the composed print job,

wherein when controlling display of the preview of the composed print job, said preview control means controls display of the preview indicating that the respective page layout of the plurality of document data is maintained.

34. (New) An information processing apparatus according to Claim 33, wherein the layout information includes at least one of first information processed upon printing at said information processing apparatus and second information processed upon printing at the printing apparatus, and wherein when the layout information includes the second information, said preview control means outputs the drawing data edited in accordance with the second information.

35. (New) An information processing apparatus according to Claim 33, wherein when the plurality of document data designated by said designation means have different layout information, said preview control means controls display of the preview such that the respective layout information of the plurality of document data are made effective and the plurality of data having respective different layout information are displayed as one composed job data.

36. (New) An information processing method which forms print data to be transmitted to a printing apparatus, comprising:

a designating step which designates a plurality of document data stored in a memory so as to print the plurality of document data as one composed print job at the printing apparatus, each of the plurality of document data being associated with layout information that indicates a number of logical pages to be printed on one physical page;

a composing step which forms the composed print job by composing the plurality of document data designated in said designating step; and

a previewing step which obtains respective layout information of the plurality of document data designated in said designating step and which outputs drawing data edited in accordance with the respective layout information so as to control display of a preview of the composed print job,

wherein when controlling display of the preview of the composed print job, said previewing step controls display of the preview indicating that the respective page layout of the plurality of document data is maintained.

37. (New) An information processing method according to Claim 36, wherein the layout information includes at least one of first information processed upon printing at said information processing apparatus and second information processed upon printing at the printing apparatus, and wherein when the layout information includes the second information, said previewing step outputs the drawing data edited in accordance with the second information.

38. (New) An information processing method according to Claim 36, wherein when the plurality of document data designated in said designating step have different layout information, said previewing step controls display of the preview such that the respective layout information of the plurality of document data are made effective and the plurality of data having respective different layout information are displayed as one composed job data.

39. (New) A computer-readable storage medium which stores a computer-executable program for an information apparatus for forming print data to be transmitted to a printing apparatus, wherein said program comprises:

a designating step which designates a plurality of document data stored in a memory so as to print the plurality of document data as one composed print job at the printing apparatus, each of the plurality of document data being associated with layout information that indicates a number of logical pages to be printed on one physical page;

a composing step which forms the composed print job by composing the plurality of document data designated in said designating step; and

a previewing step which obtains respective layout information of the plurality of document data designated in said designating step and which outputs drawing data edited in accordance with the respective layout information so as to control display of a preview of the composed print job,

wherein when controlling display of the preview of the composed print job, said previewing step controls display of the preview indicating that the respective page layout of the plurality of document data is maintained.

40. (New) A computer-readable storage medium according to Claim 39, wherein the layout information includes at least one of first information processed upon printing at said information processing apparatus and second information processed upon printing at the printing apparatus, and wherein when the layout information includes the second information, said previewing step outputs the drawing data edited in accordance with the second information.

41. (New) A computer-readable storage medium according to Claim 39, wherein when the plurality of document data designated in said designating step have different layout information, said previewing step controls display of the preview such that the respective layout information of the plurality of document data are made effective and

the plurality of data having respective different layout information are displayed as one composed job data.

42. (New) A computer-executable program stored on a computer-readable memory medium for an information processing apparatus for forming print data to be transmitted to a printing apparatus, comprising:

designating code which designates a plurality of document data stored in a memory so as to print the plurality of document data as one composed print job at the printing apparatus, each of the plurality of document data being associated with layout information that indicates a number of logical pages to be printed on one physical page;

composing code which forms the composed print job by composing the plurality of document data designated by said designating code; and

previewing code which obtains respective layout information of the plurality of document data designated by said designating code and which outputs drawing data edited in accordance with the respective layout information so as to control display of a preview of the composed print job,

wherein when controlling display of the preview of the composed print job, said previewing code controls display of the preview indicating that the respective page layout of the plurality of document data is maintained.

43. (New) A computer-executable program according to Claim 42, wherein the layout information includes at least one of first information processed upon printing at said information processing apparatus and second information processed upon printing at the printing apparatus, and wherein when the layout information includes the

second information, said previewing code outputs the drawing data edited in accordance with the second information.

44. (New) A computer-executable program according to Claim 36, wherein when the plurality of document data designated by said designating code have different layout information, said previewing code controls display of the preview such that the respective layout information of the plurality of document data are made effective and the plurality of data having respective different layout information are displayed as one composed job data.